

## Abstract

### Methods for simulation of biological and/or chemical reaction pathway, biomolecules and nano-molecular systems

- 5 A method for simulation of at least one biological and/or chemical reaction pathway comprising: preparing a map of at least one biological and/or chemical reaction pathway; constructing at least one set of binding and reaction equation from the pathway map; constructing at least one set of concentration equation for molecules of the pathway map; constructing an
- 10 electronic circuit corresponding to every set of equation; determining simulation of pathway by measuring voltage at two or more connection points of the circuit. It is also provided a method for molecular dynamics simulation of biomolecules and/or nano-molecular systems comprising: constructing at least one set of equation representing the molecular dynamics of at least one
- 15 molecule of the biomolecules and/or the nano-molecular systems; constructing an electronic circuit representing every set of equation; determining molecular dynamics simulation by measuring voltage at two or more connection points of the circuit.